

# TERNATIONAL MANUEL STERNATIONAL MANUEL STERNAT



CATALOGUES

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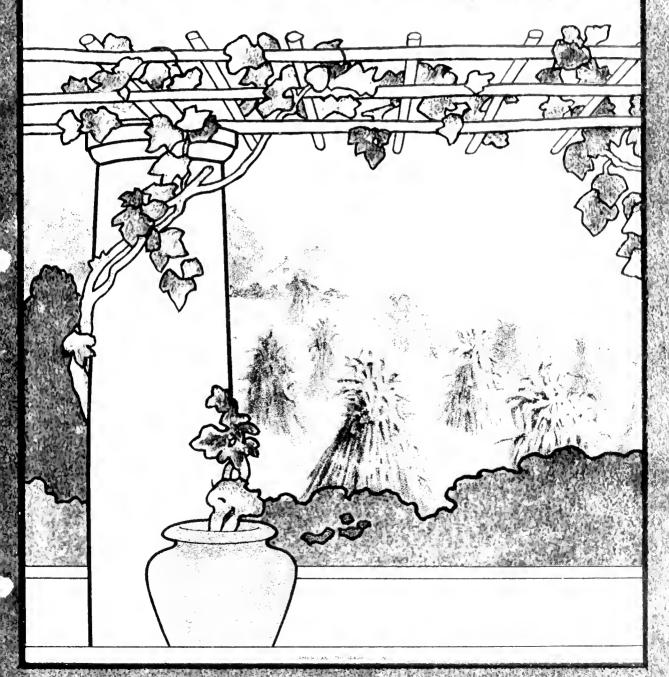
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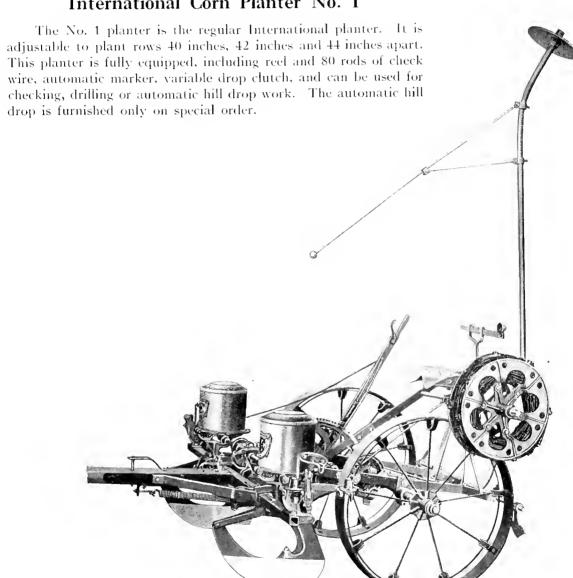


## INTERNATIONAL CORN PLANTERS









The No. 1 is the regular type of International corn planter



#### International Corn Planters Are Well Constructed

#### Built in 5 Styles

The planters are all steel with the exception of the tongue. The frame of the planters is one continuous piece of high grade steel, the rear portion being circular in form, giving the frame exceptional strength and stability. The frame is attached to the runner frame by two large pins, making a strong connection but allowing the runner frame to pivot independently and to conform to surface irregularities. The entire construction of the International corn planters is simple, but very efficient.

When the kernels are well planted, more than half of man's battle in securing a good crop is won. The International corn planter was designed for the one purpose of putting the corn in the ground in the best possible manner for rapid growth.

It is in the field that the International corn planter proves its superiority. Provided with variable and automatic drops, and with edge drop, flat drop, or full hill drop plates, the corn is put into the ground according to the power of the soil to develop it to full maturity. Practically all fields vary as to the producing ability of the soil. A planter with an assortment of drops, therefore, becomes of great assistance in securing a uniform crop and enabling the soil to develop the seed to its fullest extent.

#### The Automatic Marker Is A Great Convenience and Time-saver

In turning on the ends the driver can devote his entire attention to his team without the necessity of hooking one arm around the marker standard to hold the marker up. The handling of the marker on the International corn planter is entirely automatic. When the runners are raised from the ground the marker is also raised by means of a malleable iron crank which is keyed to the end of the shaft and comes in contact with the foot lever, this in turn being connected with the lifting lever. The action, therefore, of raising the runners out and of raising the marker is controlled by the lifting lever. The marker assumes a vertical position and is held there until the runners are again lowered into the ground.

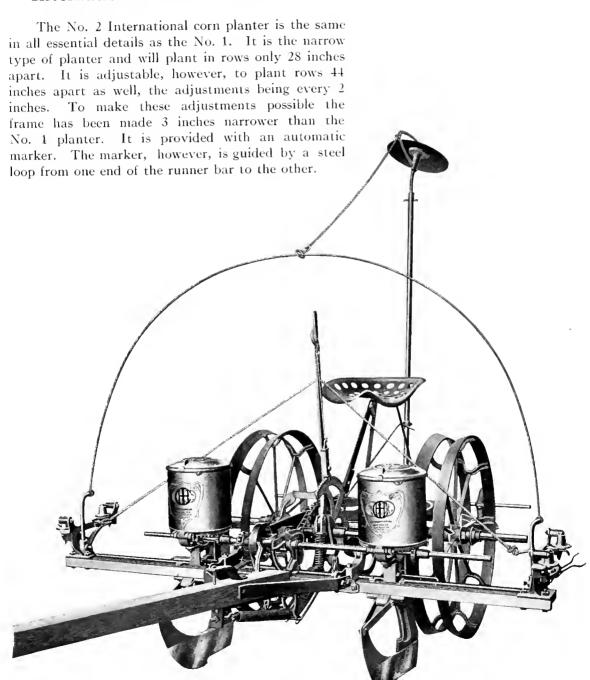
The marker is a concave steel disk 11 inches in diameter and is held in position on the marker pipe by two sand collars, one on each end of the hub. On the various planters it is adjustable to suit the various row adjustments of the planter.

#### SEED PLATES FURNISHED WITH CORN PLANTER No. 1

				DRILLING		AUTOMATIC DROP		
	No. of Cells in Plate	NO. OF CELLS SIZE OF IN PLATE KERNELS	SPACE OF SINGLE KERNELS SPROCKETS USED			Spacing of Hills Sprockets Used		
			20-Tooth	14-Tooth	11-Tooth	20-Tooth	14-Tooth	11-Tooth
1006A 1007A 1154A	16 Edge Drop 16 Edge Drop 4 Hill Drop	Small Medium Medium	6" 6"	10" 10"	12" 12"	28" 28" 28"	41" 41" 41"	50″ 50″ 50″
1284A	16 Flat Drop	Medium	6"	10"	t2"	28"	41"	50"

1)





The International corn planter No. 2 is a narrow row planter



#### SEED PLATES FURNISHED WITH CORN PLANTER No. 2

		DRILLING				AUTOMATIC DROP				
No. of Plates	No. of Cells IN Plate	SIZE OF KERNELS	20-Tooth Sprocket on Axle to		11-TOOTH SPROCKET ON AXLE TO		20-TOOTH SPROCKET ON AXIE TO		11-TOOTH SPROCKET ON AXLE TO	
			6-Tooth	8-Tooth	6-Tooth	8-Tooth	6-Tooth	8-Tooth	6-Tooth	8-Tooth
1006A 1007A 1154A 1284A	t6 Edge Drop 16 Edge Drop 4 Hill Drop 16 Flat Drop	Small Medium Medium Medium	6" 6"	9" 9"	12" 12"	16½" 16½" 16½"	28" 28" 28" 28"	37" 37" 37" 37"	50" 50" 50" 50"	67 ½" 67 ½" 67 ½" 67 ½"

1186A—Filler rings used on flat drop only.

The spring does most of the lifting

#### The Equalizing Spring Carries the Load

The equalizing spring is located under the rear of the tongue and is connected to the lifting lever with a compensating link which equalizes the power at the different points of the movement. This makes it much easier to operate than if the spring was attached directly to the lever without a compensating link. In placing the spring under the pivoting points of the frame, the load is taken from the pivot and placed on the spring. This insures longer life of the pivoting points and keeps the runner frame secure and solid with the drive frame. The spring is adjustable to suit the weights of different drivers. The spring also assists in the raising of the automatic marker.

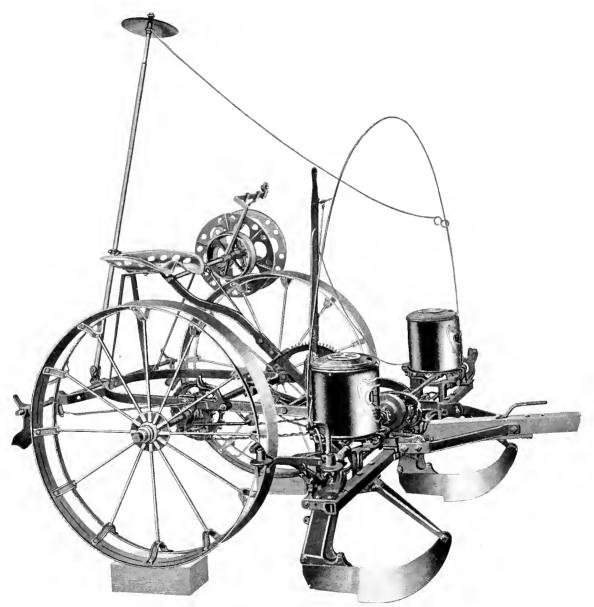
The runner frame is pivoted between the equalizing and compression springs. The compression spring holds the runners in the ground, but when an unusually soft spot is encountered the runners cannot go too deep because the equalizing spring holds the frame in the correct position. The movement of the runner frame is, therefore, controlled by two springs. This construction materially assists in securing a uniform depth of planting.

## Adjustable Tongue Assures Even Planting

Even spacing and checking corn requires that the seed cans stand level. This requires that the planter be adjustable to suit the height of different teams used. The International corn

planter is, therefore, equipped with an adjustable tongue. The tongue is connected to the runner frame with large serrated adjusting brackets and heavy steel braces which make the tongue conveniently adjustable to suit the various teams and planting conditions. Below the pole is a heavy steel bar which extends underneath the square pipe of the runner frame and rearward to the lifting lever crank, to which it is connected by a powerful compression spring with a large plunger bolt. This virtually causes the runner frame to float and permits of an elastic movement which causes the runners to conform to the uneven surfaces of the ground.





The No. 4 is the large sized International corn planter



The No. 4 planter is practically the same as the No. 1 except in size and with reference to the marker. The No. 4 is larger both as to frame and wheels. The frame is 6 inches longer than the No. 1 and the wheels are 36 inches in height as compared to 30 inches for the No. 1. The boots on the No. 4 are made correspondingly larger, to suit the larger size of frame and wheels. The No. 4 is equipped with a regular marker. It is not necessary, however, to dismount from the seat with this marker because of a steel wire loop which guides the marker chain from one side of the planter to the other. The 36-inch wheels on this planter are especially adapted for use in fields where the seed bed has been prepared by a lister.

#### SEED PLATES FURNISHED WITH CORN PLANTER No. 4

PLATES IN PLATE		Kernels		DRILLING		AUTOMATIC DROP		
	No. of Cells		SPACING OF SINGLE KERNELS SPROCKETS USED			Spacing of Hills Sprockers Used		
			20-Tooth	14-Tooth	11-Tooth	20-Tooth	14-Tooth	11-Tooth
1006A	16 Edge Drop	Small	6"	10"	12"	28"	41"	50"
1007A	16 Edge Drop	Medium	6"	10"	12"	28"	41"	50″ 50″
1154A 1284A	4 Hill Drop 16 Flat Drop	Medium Medium	6"	10"	12"	28" 28"	11"	50"

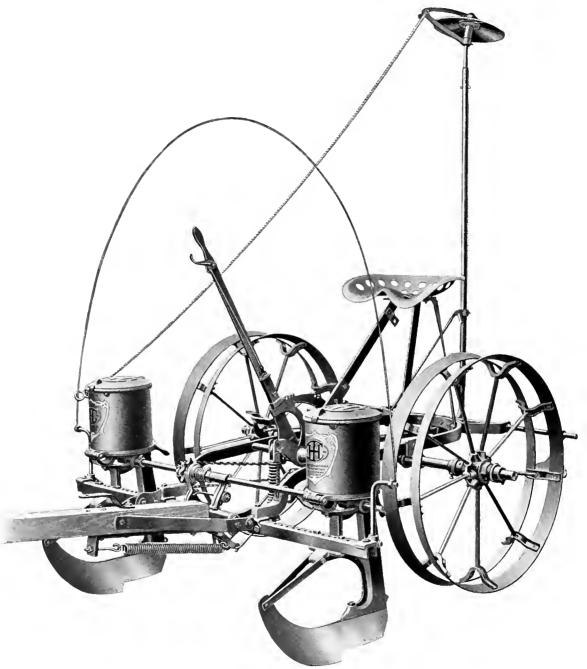
1186A-Filler rings used with flat drop only.

## The Automatic Drop Deposits 2, 3 or 4 Kernels in a Hill

An automatic or power drop is provided on the International corn planters. This makes it possible to use the planter without check wire and drop either two, three or four kernels in a hill. The large sprocket on the main shaft with 20 teeth will plant a hill every 28 inches, and the medium sprocket with 14 teeth will plant a hill every 41 inches. The small sprocket with 11 teeth will plant hills 50 inches apart. Sprockets can be furnished to give any spacing required.

In adjusting or changing the machine for the automatic or power drop, it is necessary to place the small lug No. 1087A in the U-shaped clutch opening of casting 1081A. This lug is attached with a  $^3$ s-inch cap screw. It is also necessary to place a  $^3$ + x  $^5$ s-inch bolt through the holes in castings 1044A and 1045A. These stop lugs are part of the trip spring brackets and must be bolted to avoid all lost motion. The bolt and lug should be removed when using wire, otherwise the corn will string out, as the valves are partly open. The power drop lug, 1087A, the  $^3$ + x  $^5$ s-inch machine bolt will be packed extra, and can be furnished as an extra on No. 1, No. 2, No. 4 and No. 5 planters.





International corn planter No. 6 is adapted only for drilling



The No. 5 is the wide row planter. It is the same in equipment as the No. 1 except the tread is wider, being adjustable to widths of 42 inches, 44 inches, 46 inches, and 48 inches. It is equipped with the automatic marker, but the steel loop used to guide the marker chain is used, the same as on the No. 2 planter.

#### International Corn Planter No. 6

The No. 6 planter is a straight drill drop only. The drop clutch is discontinued on this planter, and no reel or check wire is furnished. The No. 6 planter is designed especially for the use of the farmer who wishes to drill his corn instead of checking it.

The runner frame is cut off on each end and the check heads removed. The clutch feature is entirely eliminated, and the No. 6 planter is used only for drilling. Plates are furnished having the necessary number of holes for dropping two, three, or four kernels in a hill. This planter is also regularly equipped with the automatic marker. Below is a table of the seed plates furnished with this planter.

#### SEED PLATES FURNISHED WITH CORN PLANTER No. 6

	1			DRI	LLING	
No. of PLATES	No. of Cells in Plate	Size of Kernels	20-Tooth on Ax		11-Tooth Sprocket on Axle to	
			6-Tooth	8-Tooth	6-Tooth	8-Tooth
1000A	8 Edge Drop	Small	14"	1812"	25"	3312
1001A	8 Edge Drop	Medium	14"	1812"	25"	3312
1003A	12 Edge Drop	Small	9"	12"	17"	$22^{1}_{2}$
1004A	12 Edge Drop	Medium	9"	12"	17"	22,12
1006A	16 Edge Drop	Smalt	6"	9"	12"	1612
1007A	16 Edge Drop	Medium	6"	9"	12"	1612
1284A	16 Flat Drop	Medium	6"	9"	12"	16 1/2

1186A—Filler rings used on flat drop only.

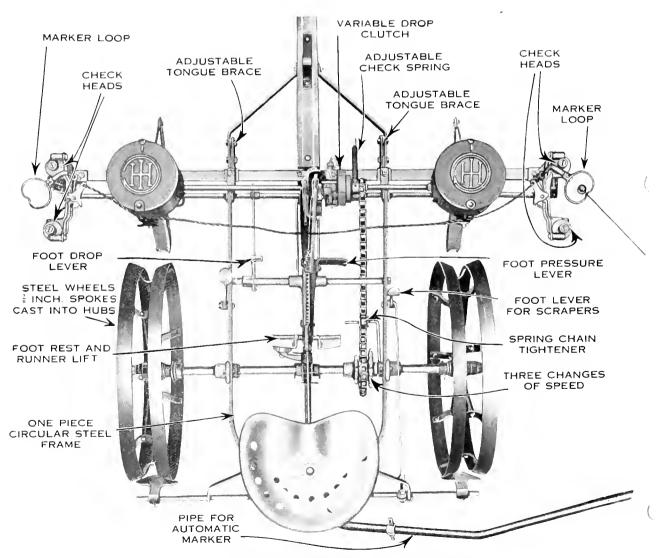
### International Corn Planters of the No. 6 Type Are Thrown Out of Gear Automatically

International corn planters are constructed so that they require the least amount of attention from the driver while operating them. The automatic throw-out on the No. 6 type requires no attention from the driver. When the runners are raised from the ground, the automatic throw-out releases the drive clutch and the feed shaft remains out of gear until the runners are again lowered into the ground. The latter action releases the clutch, and the planter is again ready for operation.



#### A Strong Main and Power Axle

The axle is 114 inches in diameter, and is mounted on the gear frame with two heavy, long bearings. The axle is made long enough to adjust the wheels to the several widths. On No. 1, No. 4 and No. 5 planters three differently sized sprockets are fastened firmly on the drive axle, inside of the frame. These three sprockets are used where it is necessary to change the distance between the hills when the power drop is used, or to space the distance between separate kernels when drilling. On No. 2 and No. 6 planters there are two sprockets on the axle and two on the drive shaft, making four changes for distance possible.



A planter of few parts with every part counting



Three Regular Types of Seed Plates

With International corn planters the edge drop, flat drop, and full hill drop plates are the three regularly furnished. Each cell in these plates is just large enough to contain a kernel of corn edgewise or flatwise with the edge and flat drop plates, and a full hill of kernels for the full hill drop plate.

The seed plates are operated by small pinions attached to the shaft by set screws. The seed plate gears have grooves which match with an arrow on the flange of the pinion, bringing the seed plates into their proper position and compelling them to operate always in exact time with the openings of the valve. Over three-fourths of the plate is constantly exposed for cell-filling. It is practically impossible for a cell to present itself empty over the valve.

Special plates can be furnished for handling Indian corn, pop corn, sweet corn, mile maize, Kafir corn, sorghum cane, beets, peas, cowpeas, and beans of various sorts.

#### A Special Pea Attachment

Many farmers are now planting peas with corn to be used not only for a green feeding crop but as a fertilizer for the soil. The special pea attachment for the International corn planter makes possible the planting of the peas simultaneously with the corn.

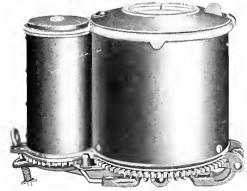
By means of the diverting block in the pea can, the seeds may be dropped into the regular boot with the hill of corn, or they may be dropped through a special tube attached to the pea can and be deposited a few inches to the rear of the hill of corn, and thus planted nearer the surface than the corn. To change from one to the other method of planting requires only the reversing of the seed diverting block.



The seed diverting block placed for the peas to be planted with the corn

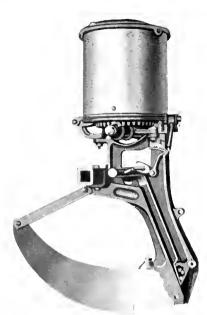


The seed diverting block placed for the peas to be planted back of the hill of corn

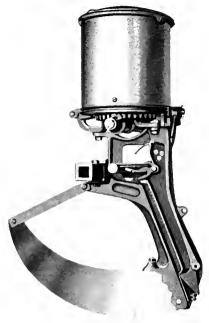


The pea attachment. Peas can be planted simultaneously with the corn









Boot cut away to show valve open

#### The Efficient Duck-Bill Valve

One of the most striking features of the International corn planter is the boot construction and the duck-bill valve. Illustrations show the boot in cross section, one with the valves open and the other with the valves closed. The construction insures excellent checking for the reason that the kernels are dropped directly into the bottom of the furrow. The boot does not have any ledge or tumbler to detain the corn as it drops into the valve. The kernels are not left on any dirt surface and then pushed off to find their way by gravity or as best they can to the bottom of the furrow. The action of the valve in this boot is similar to a duck-bill and hence, it has been termed the duck-bill valve.

The illustration to the left shows the kernels of corn held in the very bottom of the valve until the check wire opens it. The valve opens and kicks backward thus knocking away the dirt which may have gathered up around the valve and which otherwise would keep the corn from dropping into the bottom of the furrow.

The illustration at the right shows the valve open and the action as just described. Note also that the entire valve moves downward and acts as a force drop, at the same time that the duckbill portion of the valve is kicking out the dirt from the boot.

It will be seen that while the kernels are in the lower valve ready to drop out, three kernels are gathered just over the upper valve. Both valves are opened simultaneously; thus the kernels in the upper valve drop into the shank and down into the lower valve and are ready to be deposited in the furrow when the check wire again opens the valve.

This valve on the International corn planter should be carefully investigated by the prospective buyer. It is entirely new and has proven itself to be the most scientific and practical valve on the market.



Bottom of hopper showing cut-off, seed plate and agitating ring



Bottom of hopper showing brush cut-off for Kafir corn and small seeds

#### A Quick Acting and Effective Cut-off

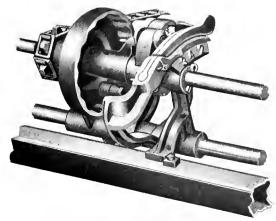
Cracked and crushed corn does not grow. The cut-off on the International corn planter lets the kernels into the valves without cracking or crushing. The chief feature of this cut-off is that it is in two parts. When the full hill or flat drop plates are in use both parts of the cut-off work simultaneously and permit only the desired number of kernels to drop into the seed plate cell. When the edge drop plate is used only one part of the cut-off operates. By this construction the cut-off fits down tightly on to each and every plate that is being used, resulting in very efficient work and the prevention of practically all crushing and cracking of the kernels.

#### Brush Cut-off for Kafir Corn and Small Seeds

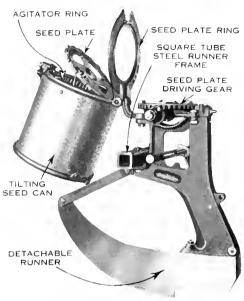
For planting Kafir corn or small seeds, it is only necessary to put in the brush cut-off in place of the regular cut-off and the Kafir corn seed plate or the special seed plate that is desired. The knock-out in the brush cut-off is constructed so that it hits the plate cell fully insuring a clean drop of the kernels or seeds.

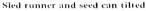
## The Variable Drop Means Better Planting

The variable drop on the International corn planter makes it possible to plant 2, 3 or 4 kernels in a hill by simply shifting a clutch lever. The working surface of the adjusting cam controls the pawl which is attached to the top clutch bearing and governs the different periods of movement. The quick adjustment makes possible changing the number of kernels in a hill to suit the varying conditions of soil in the same field. The variable drop is one of the features that makes the International so popular.



The quick changing, variable drop clutch





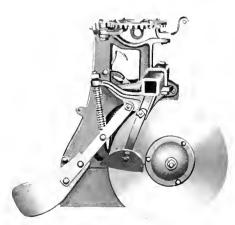


Stub runner

#### The Advantages of Four Types of Runners

The fact that there are four types of runners for the International corn planter makes it a planter that will meet every condition of soil. The four types of runners are the sled runner, the stub runner, the disk runner and the double disk runner. The sled and stub runners are perfectly familiar to corn planter users. In a season when the ground works up in a lumpy condition, the disk runner is preferred by many, because of its cutting qualities. It will readily cut either a large lump of dirt or even a bunch of stalks and straw. The disk is set at an angle. This construction gives it a cutting power of its own besides being forced into the ground by the weight and action of the planter.

The double disk runner works on practically the same principle and is preferred by a good many users because of its superior cutting features. The double disk runner requires a special boot. The other three runners are interchangeable on the regular boot.

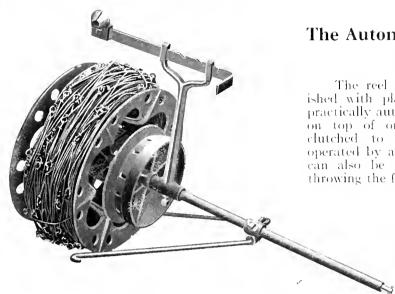


Single disk runner

One type of runner is furnished regularly with the planter and the type desired should be specified when ordering. The other types can be furnished on special order at additional cost.



Double disk runner



The reel is quickly attached. Does not need to be carried while planting

## The Automatic Reel Operates from Either Wheel

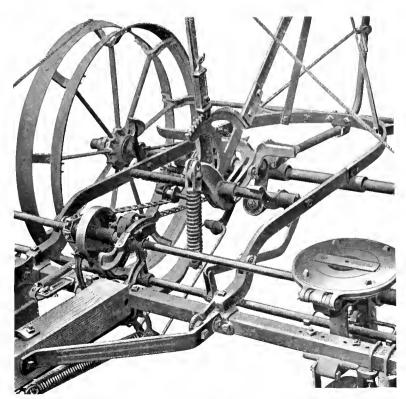
The reel for the check wire regularly furnished with planters Nos. 1, 2, 4 and 5 works practically automatically. A friction wheel runs on top of one of the planter wheels and is clutched to the wire reel, the clutch being operated by a foot lever. The friction wheel can also be released from the drive wheel by throwing the foot lever to the rear, which pushes

it back and up and locks it away from the drive wheel. Eighty rods of check wire is furnished with each planter, the spacing to be specified when ordering the planter. Provision is made on the planter frame for attaching the reel so that it will operate on either side of the planter, as desired.

#### The Main Frame and Couplings to the Runner Frame

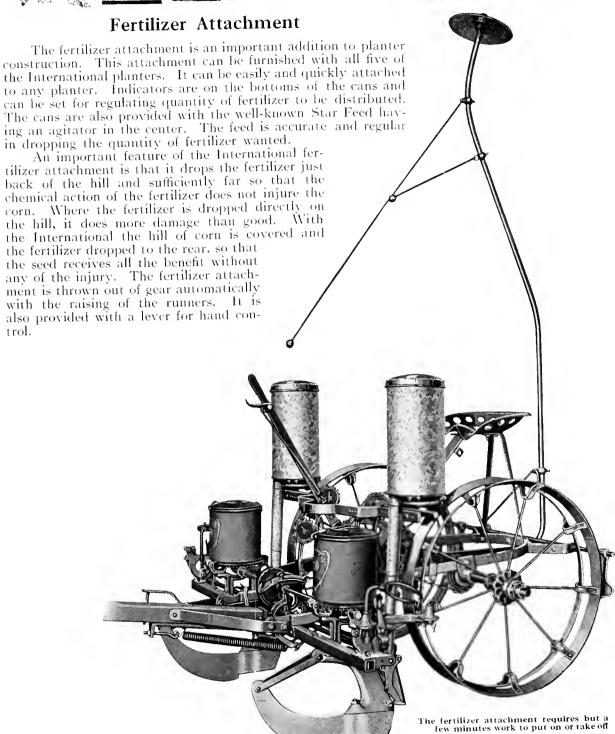
The frame of the International corn planter is made of one solid piece of high-grade steel. The rear portion of the frame is made circular. This construction makes the frame strong enough to withstand any strain that will be put upon it and to always keep the operating parts in perfect alignment. This in turn insures even dropping of the hills and satisfactory service from the planter.

The forward ends of the frame are attached to the runner frame by two large pins, which allow the runner frame to pivot independently and thus conform to uneven surfaces.



The steel frame insures years of service for the International





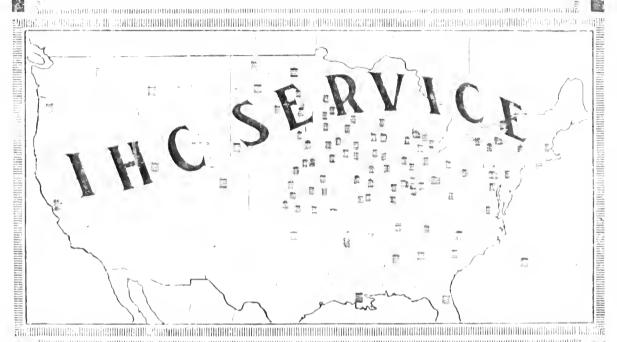
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